# California Board of Registered Nursing

# 2007-2008 Annual School Report

Data Summary and Historical Trend Analysis

A Presentation of Pre-Licensure Nursing Education Programs in California

# San Joaquin Valley

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#### **INTRODUCTION**

Each year, the California Board of Registered Nursing (BRN) requires all pre-licensure registered nursing programs in California to complete a survey detailing statistics of their programs, students and faculty. The survey collects data from August 1 through July 31. Information gathered from these surveys is compiled into a database and used to analyze trends in nursing education.

The BRN commissioned the University of California, San Francisco (UCSF) to conduct a historical analysis of data collected from the 2000-2001 survey through the 2007-2008 survey. In this report, we present eight years of historical data from the BRN Annual School Survey. Data analyses were conducted statewide and for nine economic regions<sup>1</sup> in California, with a separate report for each region. All reports are available on the BRN website (http://www.rn.ca.gov/).

This report presents data from the 8-county San Joaquin Valley Region. Counties in the region include Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. All data are presented in aggregate form and describe overall trends in the areas and over the times specified and, therefore, may not be applicable to individual nursing education programs. Additional data from the past eight years of the BRN Annual School Survey are available in an interactive database on the BRN website.

<sup>&</sup>lt;sup>1</sup> The nine regions include: (1) Northern California, (2) Northern Sacramento Valley, (3) Greater Sacramento, (4) Bay Area, (5) San Joaquin Valley, (7) Central Coast, (8) Southern California I (Los Angeles and Ventura counties), (9) Southern California II (Orange, Riverside, and San Bernardino counties), and (10) Southern Border Region. Counties within each region are detailed in the corresponding regional report. The Central Sierra (Region 6) does not have any nursing education programs and was, therefore, not included in the analyses.

#### DATA SUMMARY AND HISTORICAL TREND ANALYSES

This analysis presents pre-licensure program data from the 2007-2008 BRN Annual School Survey in comparison with data from previous years of the survey. Data items addressed include the number of nursing programs, enrollments, completions, retention rates and student and faculty census data.

# **Trends in Pre-Licensure Nursing Programs**

# Number of Nursing Programs

There are 11 nursing programs in the San Joaquin Valley region that lead to RN licensure. Of these programs, seven are ADN programs, three are BSN programs, and one is an ELM program. All but one of the pre-licensure nursing programs in the San Joaquin Valley Region are public.

**Number of Nursing Programs** 

| Trainibor of Training 1 10 | <u> </u>      |               |               |               |               |               |               |               |  |  |
|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|--|
|                            | Academic Year |               |               |               |               |               |               |               |  |  |
|                            | 2000-<br>2001 | 2001-<br>2002 | 2002-<br>2003 | 2003-<br>2004 | 2004-<br>2005 | 2005-<br>2006 | 2006-<br>2007 | 2007-<br>2008 |  |  |
| Total # Nursing Programs   | 8             | 9             | 9             | 9             | 9             | 11            | 12            | 11            |  |  |
| ADN Programs               | 6             | 6             | 6             | 6             | 6             | 6             | 7             | 7             |  |  |
| BSN Programs               | 2             | 3             | 3             | 3             | 3             | 3             | 3             | 3             |  |  |
| ELM Programs               |               |               |               |               |               | 2             | 2             | 1             |  |  |
| Public Programs            | 8             | 9             | 9             | 9             | 9             | 11            | 11            | 10            |  |  |
| Private Programs           | 0             | 0             | 0             | 0             | 0             | 0             | 1             | 1             |  |  |

# Admission Spaces and New Student Enrollments

Over the past eight years, admission spaces available for new student enrollments more than doubled, from 615 spaces in 2000-2001 to 1,326 in 2007-2008. These spaces were filled with a total of 1,420 students, almost tripling new student enrollments since 2000-2001.

**Availability and Utilization of Admission Spaces** 

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|---|---------------|--------|-------|-------|-------|--------|--------|--------|--|--|
|   | Academic Year |        |       |       |       |        |        |        |  |  |
|   | 2000-         | 2001-  | 2002- | 2003- | 2004- | 2005-  | 2006-  | 2007-  |  |  |
|   | 2001          | 2002   | 2003  | 2004  | 2005  | 2006   | 2007   | 2008   |  |  |
| Spaces Available                                    | 615           | 765    | 762   | 780   | 951   | 1,150  | 1,288  | 1,326  |  |  |
| New Student Enrollments                             | 595           | 793    | 740   | 779   | 949   | 1,261  | 1,375  | 1,420  |  |  |
| % Spaces Filled                                     | 96.7%         | 103.7% | 97.1% | 99.9% | 99.8% | 109.7% | 106.8% | 107.1% |  |  |

Nursing programs in the region have seen qualified applications to their programs more than quadruple in the last eight years. From 2006-2007 to 2007-2008, there was a 49.4% (n=1,280) increase in qualified applications to nursing programs in the San Joaquin Valley. Nursing programs still receive more applications requesting entrance into their programs than can be accommodated. As a result, the share of qualified applications that were not accepted increased from 46.9% in 2006-2007 to 63.3% in 2007-2008.

**Applications Accepted and Not Accepted for Admission** 

|                                       |               | Academic Year |               |               |               |               |               |               |  |  |  |  |
|---------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|--|--|--|
|                                       | 2000-<br>2001 | 2001-<br>2002 | 2002-<br>2003 | 2003-<br>2004 | 2004-<br>2005 | 2005-<br>2006 | 2006-<br>2007 | 2007-<br>2008 |  |  |  |  |
| <b>Qualified Applications</b>         | 931           | 1,067         | 1,203         | 1,732         | 2,246         | 2,744         | 2,591         | 3,871         |  |  |  |  |
| Accepted                              | 595           | 793           | 740           | 779           | 949           | 1,261         | 1,375         | 1,420         |  |  |  |  |
| Not Accepted                          | 336           | 274           | 463           | 953           | 1,297         | 1,483         | 1,216         | 2,451         |  |  |  |  |
| % Qualified Applications Not Accepted | 36.1%         | 25.7%         | 38.5%         | 55.0%         | 57.7%         | 54.0%         | 46.9%         | 63.3%         |  |  |  |  |

<sup>\*\*</sup>Since these data represent applications rather than individuals, an increase in qualified applications may not represent equal growth in the number of individuals applying to nursing school.

Although enrollments in all types of pre-licensure nursing education programs have increased since 2000-2001, the majority of nursing students in the San Joaquin Valley continue to be educated in ADN programs.

**New Student Enrollment by Program Type** 

|                        | Academic Year |               |               |               |               |               |               |               |  |  |
|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|--|
|                        | 2000-<br>2001 | 2001-<br>2002 | 2002-<br>2003 | 2003-<br>2004 | 2004-<br>2005 | 2005-<br>2006 | 2006-<br>2007 | 2007-<br>2008 |  |  |
| New Student Enrollment | 595           | 793           | 740           | 779           | 949           | 1,261         | 1,375         | 1,420         |  |  |
| ADN                    | 449           | 623           | 538           | 554           | 734           | 945           | 1,070         | 1,080         |  |  |
| BSN                    | 146           | 170           | 202           | 225           | 215           | 238           | 245           | 340           |  |  |
| ELM                    |               |               |               |               |               | 78            | 60            |               |  |  |
| Private                |               |               |               |               |               |               | 25            | 32            |  |  |
| Public                 | 595           | 793           | 740           | 779           | 949           | 1,261         | 1,350         | 1,388         |  |  |

# Student Completions

The number of students who completed a nursing program in the San Joaquin Valley more than doubled in the last eight years, from 505 in 2000-2001 to 1,178 in 2007-2008. Of the 1,178 students that completed a nursing program in the region in 2007-2008, 78.8% (n=928) of them completed an ADN program, 16.9% (n=199) completed a BSN program, and 4.3% (n=51) completed an ELM program.

**Student Completions** 

|                     |               | Academic Year |               |               |               |               |               |               |  |  |  |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|--|--|
|                     | 2000-<br>2001 | 2001-<br>2002 | 2002-<br>2003 | 2003-<br>2004 | 2004-<br>2005 | 2005-<br>2006 | 2006-<br>2007 | 2007-<br>2008 |  |  |  |
| Student Completions | 505           | 556           | 653           | 644           | 765           | 922           | 995           | 1,178         |  |  |  |
| AD                  | 422           | 454           | 512           | 510           | 598           | 706           | 805           | 928           |  |  |  |
| BSN                 | 83            | 102           | 141           | 134           | 167           | 216           | 190           | 199           |  |  |  |
| ELM                 |               |               |               |               |               | 0             | 0             | 51            |  |  |  |

#### Retention Rate

Of the 1,051 students scheduled to complete a nursing program in the 2007-2008 academic year, 76.5% (n=804) completed the program on-time, 9.1% (n=96) are still enrolled in the program, and 14.4% (n=151) dropped out or were disqualified from the program. The 76.5% retention rate reported in 2007-2008 is the highest reported in the past eight years.

**Student Cohort Completion and Retention Data** 

|                   | Academic Year |               |               |               |               |               |               |               |  |
|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|
|                   | 2000-<br>2001 | 2001-<br>2002 | 2002-<br>2003 | 2003-<br>2004 | 2004-<br>2005 | 2005-<br>2006 | 2006-<br>2007 | 2007-<br>2008 |  |
| Enrollment        | 643           | 610           | 821           | 700           | 939           | 1,012         | 985           | 1,051         |  |
| Completed On Time | 463           | 433           | 609           | 529           | 700           | 729           | 681           | 804           |  |
| Still Enrolled    | 78            | 89            | 129           | 108           | 89            | 142           | 128           | 96            |  |
| Attrition         | 102           | 88            | 83            | 63            | 150           | 141           | 176           | 151           |  |
| Retention Rate*   | 72.0%         | 71.0%         | 74.2%         | 75.6%         | 74.5%         | 72.0%         | 69.1%         | 76.5%         |  |
| Attrition Rate    | 15.9%         | 14.4%         | 10.1%         | 9.0%          | 16.0%         | 13.9%         | 17.9%         | 14.4%         |  |
| % Still Enrolled  | 12.1%         | 14.6%         | 15.7%         | 15.4%         | 9.5%          | 14.1%         | 13.0%         | 9.1%          |  |

<sup>\*</sup>Retention rate = (students who completed the program on-time) / (enrollment)

There has been fluctuation in the retention and attrition rates over the eight-year period documented in the above table. There were changes to the survey between 2003-2004 and 2004-2005, and between 2004-2005 and 2005-2007 that may have affected the comparability of these data over time.

#### Student Census Data

The total number of students enrolled in San Joaquin Valley nursing programs more than doubled (n=1,248) in the last eight years, from 1,106 on October 15, 2001, to 2,354 on October 15, 2008. The reported number of pre-nursing students increased by 25.7% (n=1,287) in the past year, from 5,009 in 2007 to 6,296 in 2008.

#### **Student Census Data**

|                        | Academic Year |               |               |               |               |               |               |               |  |
|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|
| Program Track          | 2000-<br>2001 | 2001-<br>2002 | 2002-<br>2003 | 2003-<br>2004 | 2004-<br>2005 | 2005-<br>2006 | 2006-<br>2007 | 2007-<br>2008 |  |
| ADN Program            | 981           | 1,050         | 1,128         | 1,260         | 1,199         | 1,614         | 1,873         | 1,567         |  |
| BSN Program            | 125           | 153           | 571           | 681           | 664           | 655           | 746           | 787           |  |
| ELM Program            |               |               |               |               |               | 73            | 56            |               |  |
| Total Nursing Students | 1,106         | 1,203         | 1,699         | 1,941         | 1,863         | 2,342         | 2,675         | 2,354         |  |
| Pre-Nursing Students   |               |               |               |               | 5,335         | 5,319         | 5,009         | 6,296         |  |

<sup>\*</sup>Blank cells indicated that the applicable information was not requested in the given year.

#### Clinical Simulation in Nursing Education

Data show that 70.0% (n=7) of the ten nursing schools in the San Joaquin Valley used a clinical simulation center<sup>2</sup> between 8/1/07 and 7/31/08. The majority of schools that use clinical simulation centers reported that they use these facilities to standardize clinical experiences and to provide clinical experience not available in a clinical setting. Data gathered also show that all of the San Joaquin Valley nursing schools that currently use a clinical simulation center have plans to expand it.

| Reasons for Using a Clinical Simulation Center*                    | 2007-<br>2008 |
|--|---------------|
| To standardize clinical experiences                                | 85.7%         |
| To provide clinical experience not available in a clinical setting | 85.7%         |
| To check clinical competencies                                     | 57.1%         |
| To make up for clinical experiences                                | 57.1%         |
| To increase capacity in your nursing program                       | 0.0%          |
| Number of schools that use a clinical simulation center            | 7             |

<sup>\*</sup>These data were collected for the first time in 2006-2007. However, changes in these questions for the 2007-2008 administration of the survey and lack of confidence in the reliability of the 2006-2007 data prevent comparability of the data. Therefore, data from previous years of the survey are not shown.

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<sup>&</sup>lt;sup>2</sup> Clinical Simulation Center/Experience - students have a simulated real-time nursing care experience using hi-fidelity mannequins and clinical scenarios, which allow them to integrate, apply, and refine specific skills and abilities that are based on theoretical concepts and scientific knowledge. The experience includes videotaping, de-briefing and dialogue as part of the learning process.

# Faculty Census Data

The total number of nursing faculty in the San Joaquin Valley increased by 7.4% (n=25) over the last year. On October 15, 2008, there were 365 total nursing faculty. Of these faculty, 39.7% (n=145) were full-time and 60.3% (n=220) were part-time.

Although there was an increase in the total number of nursing faculty in 2008, that increase has not kept pace with the need for faculty. On October 15, 2008, there were 19 vacant faculty positions in the San Joaquin Valley. These vacancies represent a 5.2% faculty vacancy rate.

#### **Faculty Data**

|                |               | Academic Year |               |               |                |               |               |               |  |  |  |
|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--|--|--|
|                | 2000-<br>2001 | 2001-<br>2002 | 2002-<br>2003 | 2003-<br>2004 | 2004-<br>2005* | 2005-<br>2006 | 2006-<br>2007 | 2007-<br>2008 |  |  |  |
| Total Faculty  | 173           | 194           | 222           | 237           | 281            | 328           | 340           | 365           |  |  |  |
| Full-time      | 95            | 106           | 108           | 112           | 109            | 133           | 133           | 145           |  |  |  |
| Part-time      | 78            | 88            | 114           | 125           | 97             | 195           | 207           | 220           |  |  |  |
| Vacancy Rate** |               | 6.3%          | 2.2%          | 3.3%          | 8.2%           | 3.8%          | 6.8%          | 4.9%          |  |  |  |
| Vacancies      |               | 13            | 5             | 8             | 25             | 13            | 25            | 19            |  |  |  |

In 2004-2005, 2005-2006 and 2006-2007, the sum of full- and part-time faculty did not equal the total faculty reported.

#### Summary

The San Joaquin Valley region has seen the number of qualified applications to its nursing programs more than quadruple since 2000-2001. Although there was a slight drop in the number of qualified applications between 2005-2006 and 2006-2007, there was a sharp increase (49.4%) in qualified applications in 2007-2008. Since 2000-2001, the number of admission spaces available and corresponding new student enrollments have more than doubled.

Nursing program expansions have led to a growing number of RN graduates in the region. Between 2000-2001 and 2007-2008, graduations more than doubled (n=673) in the San Joaquin Valley. Graduations will continue to rise as larger cohorts of students complete RN programs. In the past year, retention rates rose from 69.1% (n=681) in 2006-2007 to 76.5% (n=804) in 2007-2008.

Expansion in nursing education has required nursing programs to hire more faculty. As a result, San Joaquin Valley RN programs reported that they had 19 faculty vacancies in 2007-2008, representing a 4.9% faculty vacancy rate. Without more faculty, RN programs will not be able to continue their expansion.

<sup>\*</sup>Faculty vacancies were estimated based on the vacant FTEs reported.

<sup>\*\*</sup>Vacancy rate = number of vacancies/(total faculty + number of vacancies)

# APPENDIX A - San Joaquin Valley Nursing Education Programs

### **ADN Programs**

Bakersfield College
College of the Sequoias
Fresno City College
Merced College
Modesto Junior College
San Joaquin Delta College
San Joaquin Valley College

# **BSN Programs**

CSU Bakersfield CSU Fresno CSU Stanislaus

# **ELM Programs**

CSU Fresno

### **APPENDIX B - BRN Education Advisory Committee Members**

# **BRN Education Advisory Committee Members**

Sherry Fox, Chair California State University, Chico

Barbara Whitney California Community College Chancellor's Office
Deloras Jones California Institute of Nursing and Health Care
Jim Comins California Community College Chancellor's Office

Loucine Huckabay California State University, Long Beach

Margaret Craig Napa Valley College
Marilyn Herrmann Loma Linda University

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